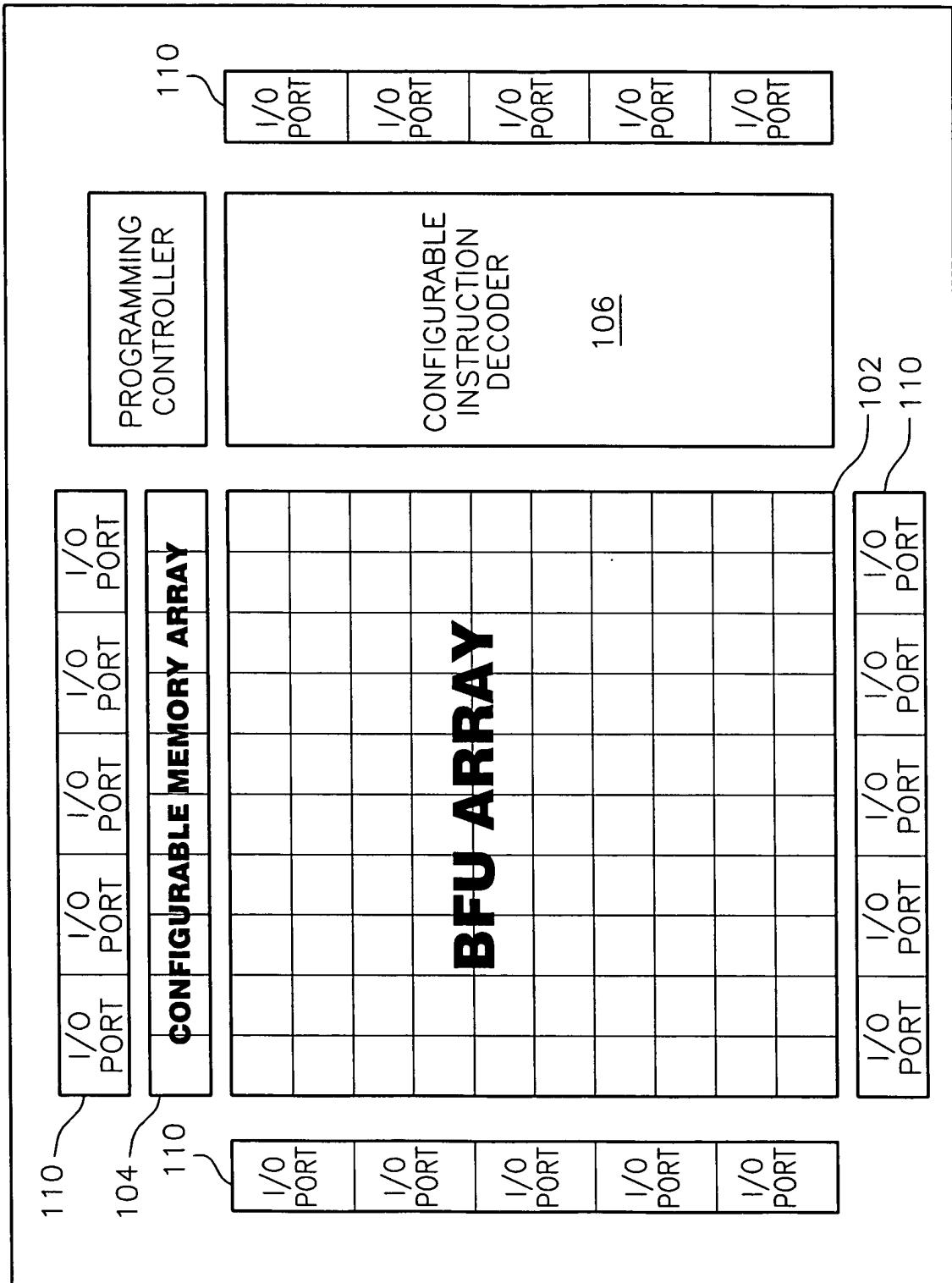Application No. 09/651,425
Inventor(s): Christopher Songer, et al.
Title: SYSTEM AND METHOD FOR PREPARING
SOFTWARE FOR EXECUTION IN A
DYNAMICALLY CONFIGURABLE . . .
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FIG.1

PROGRAMMING CONTROLLER

CONFIGURABLE INSTRUCTION DECODER
106

CONFIGURABLE MEMORY ARRAY

BFU ARRAY

I/O PORT (multiple)

110

102

104

Application No. 09/651,425
Inventor(s): Christopher Songer, et al.
Title: SYSTEM AND METHOD FOR PREPARING
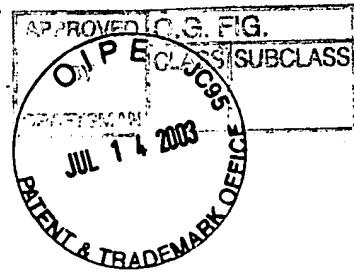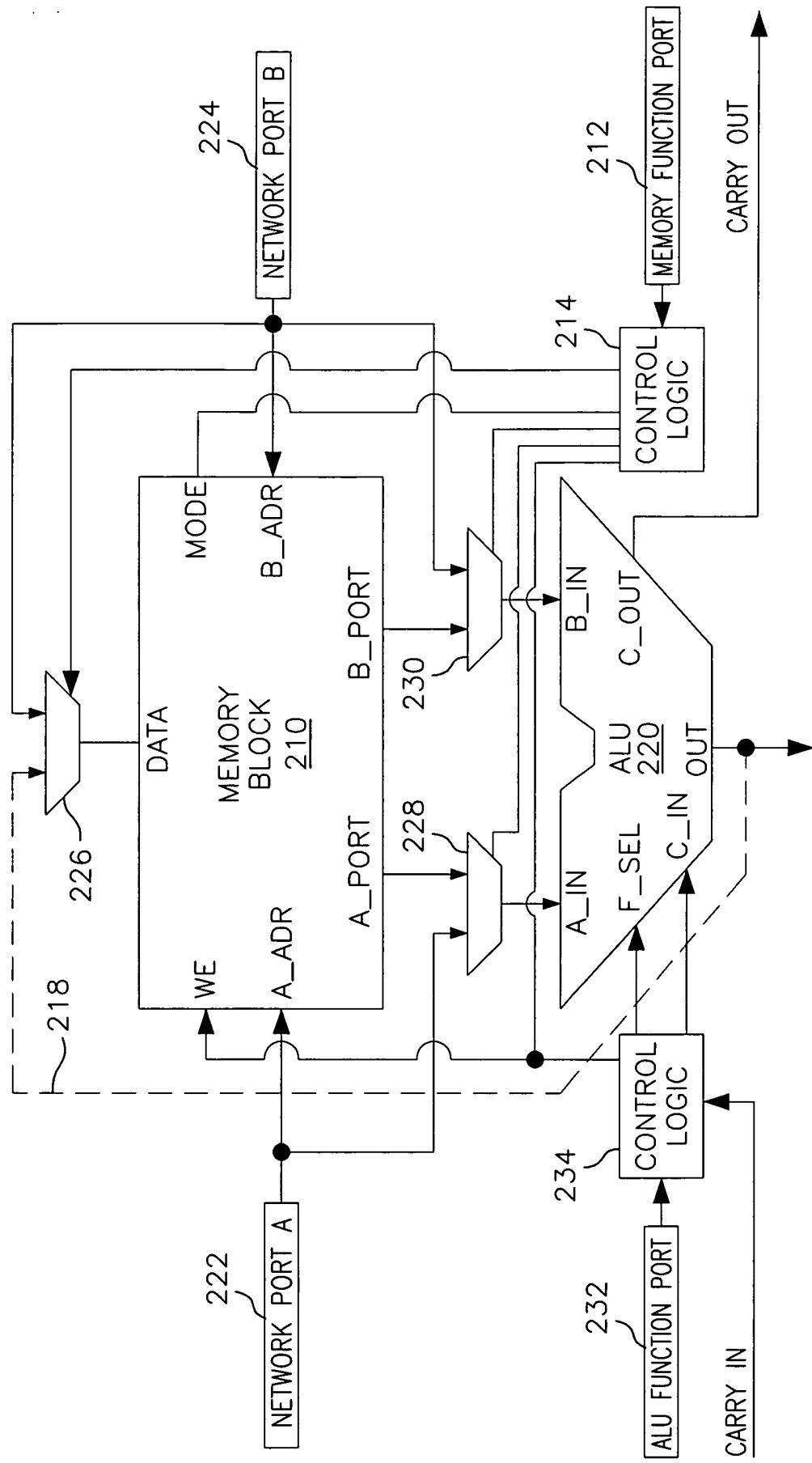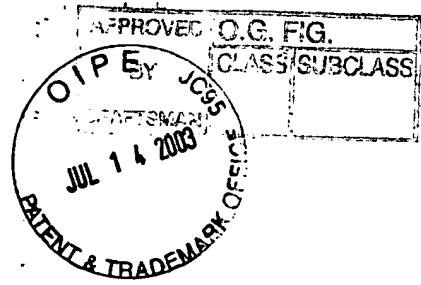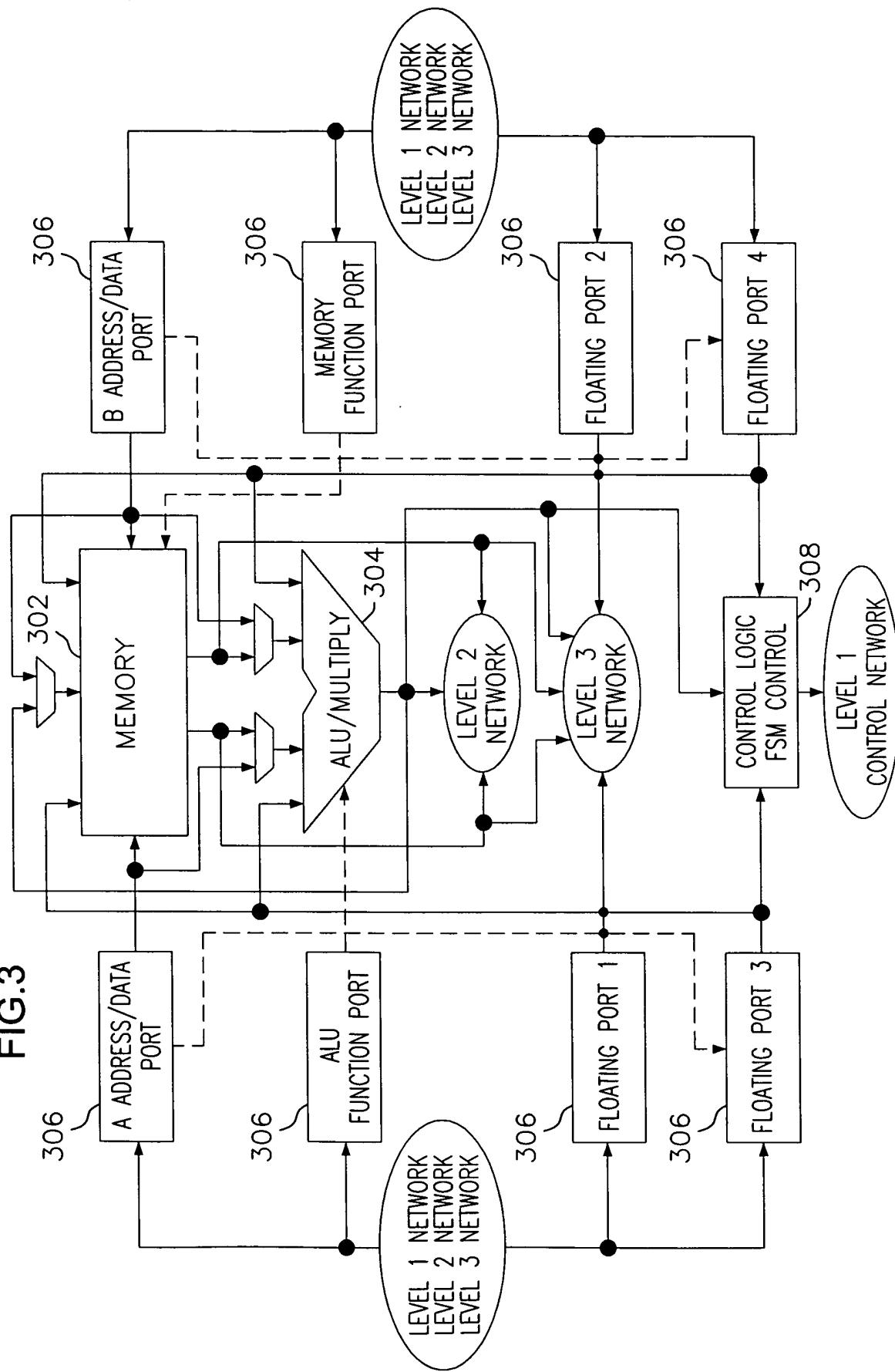SOFTWARE FOR EXECUTION IN A
DYNAMICALLY CONFIGURABLE . . .
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FIG.2

NETWORK PORT B 224

MEMORY FUNCTION PORT 212

CARRY OUT

CONTROL LOGIC 214

MODE

B_ADR

DATA

MEMORY BLOCK 210

B_PORT

230

226

WE

A_ADR

A_PORT

228

218

B_IN

C_OUT

ALU 220

A_IN

F_SEL

C_IN OUT

CONTROL LOGIC 234

NETWORK PORT A 222

ALU FUNCTION PORT 232

CARRY IN

Application No. 09/651,425
Inventor(s): Christopher Songer, et al.
Title: SYSTEM AND METHOD FOR PREPARING
SOFTWARE FOR EXECUTION IN A
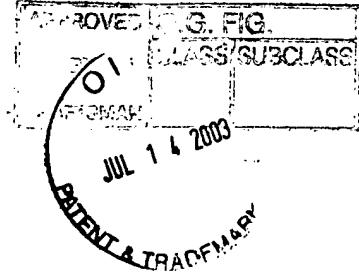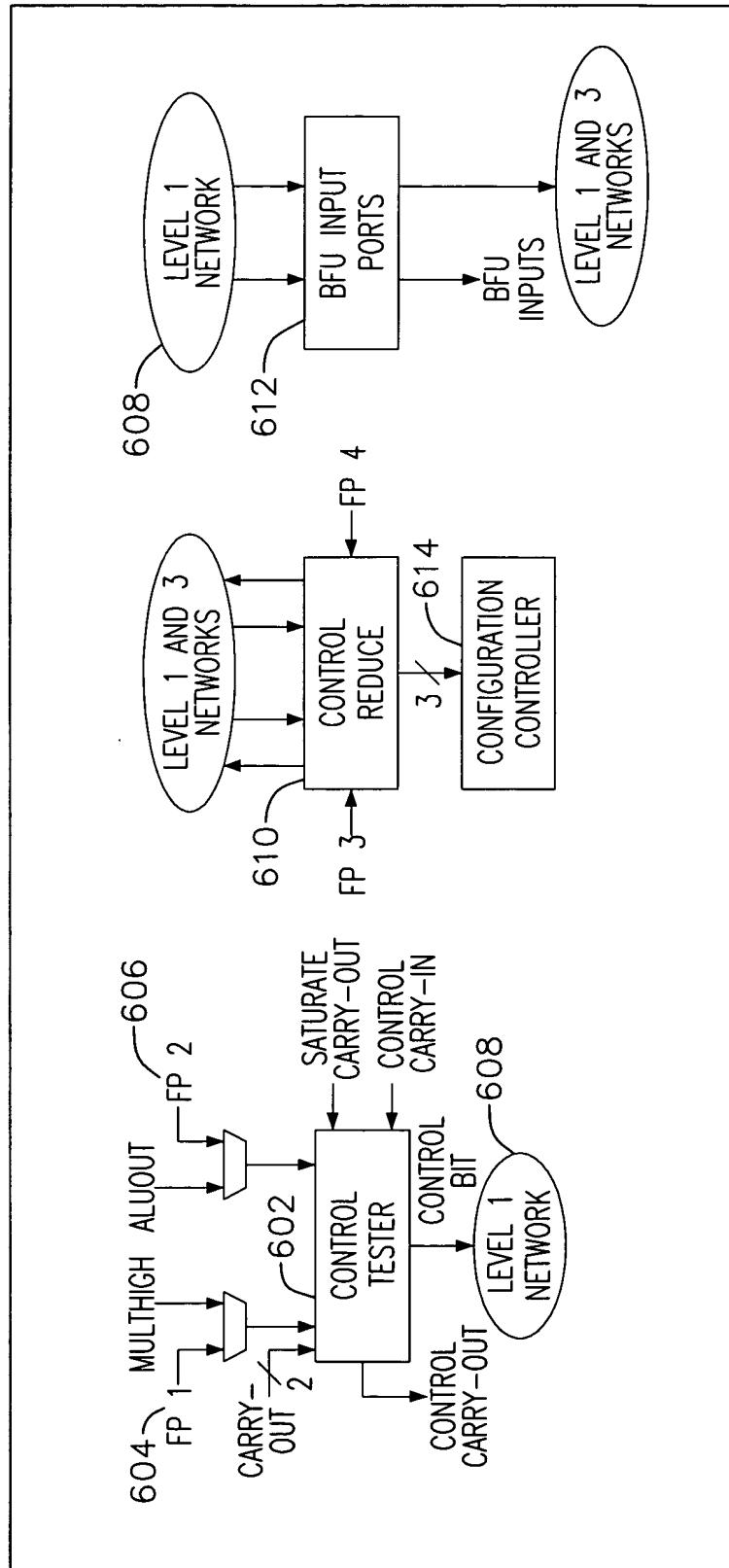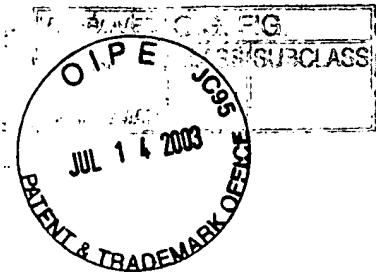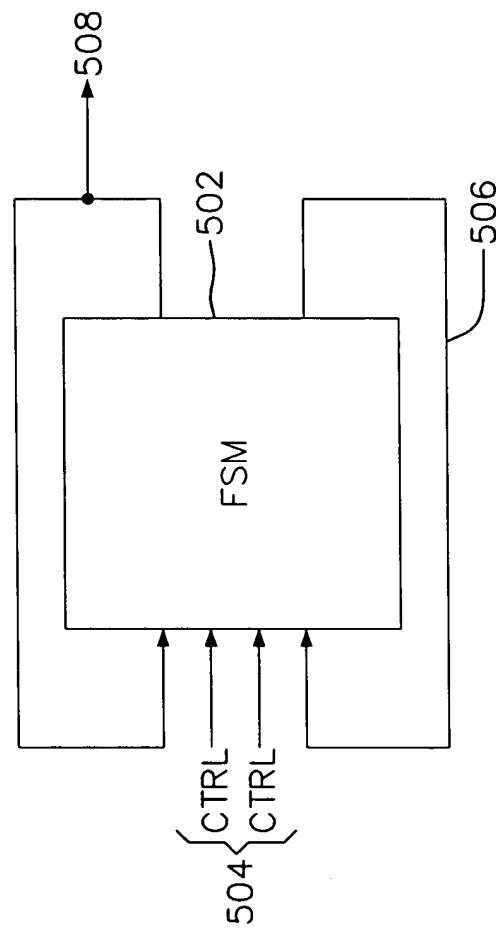DYNAMICALLY CONFIGURABLE . . .
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FIG.3

FIG.4

Application No. 09/651,425
Inventor(s): Christopher Songer, et al.
Title: SYSTEM AND METHOD FOR PREPARING
SOFTWARE FOR EXECUTION IN A
DYNAMICALLY CONFIGURABLE . . .
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FIG.5

Application No. 09/651,425
Inventor(s): Christopher Songer, et al.
Title: SYSTEM AND METHOD FOR PREPARING
SOFTWARE FOR EXECUTION IN A
DYNAMICALLY CONFIGURABLE . . .
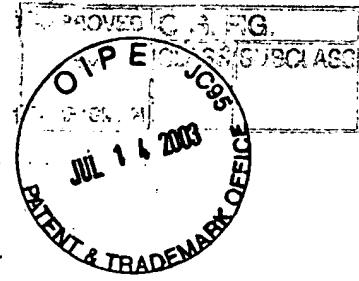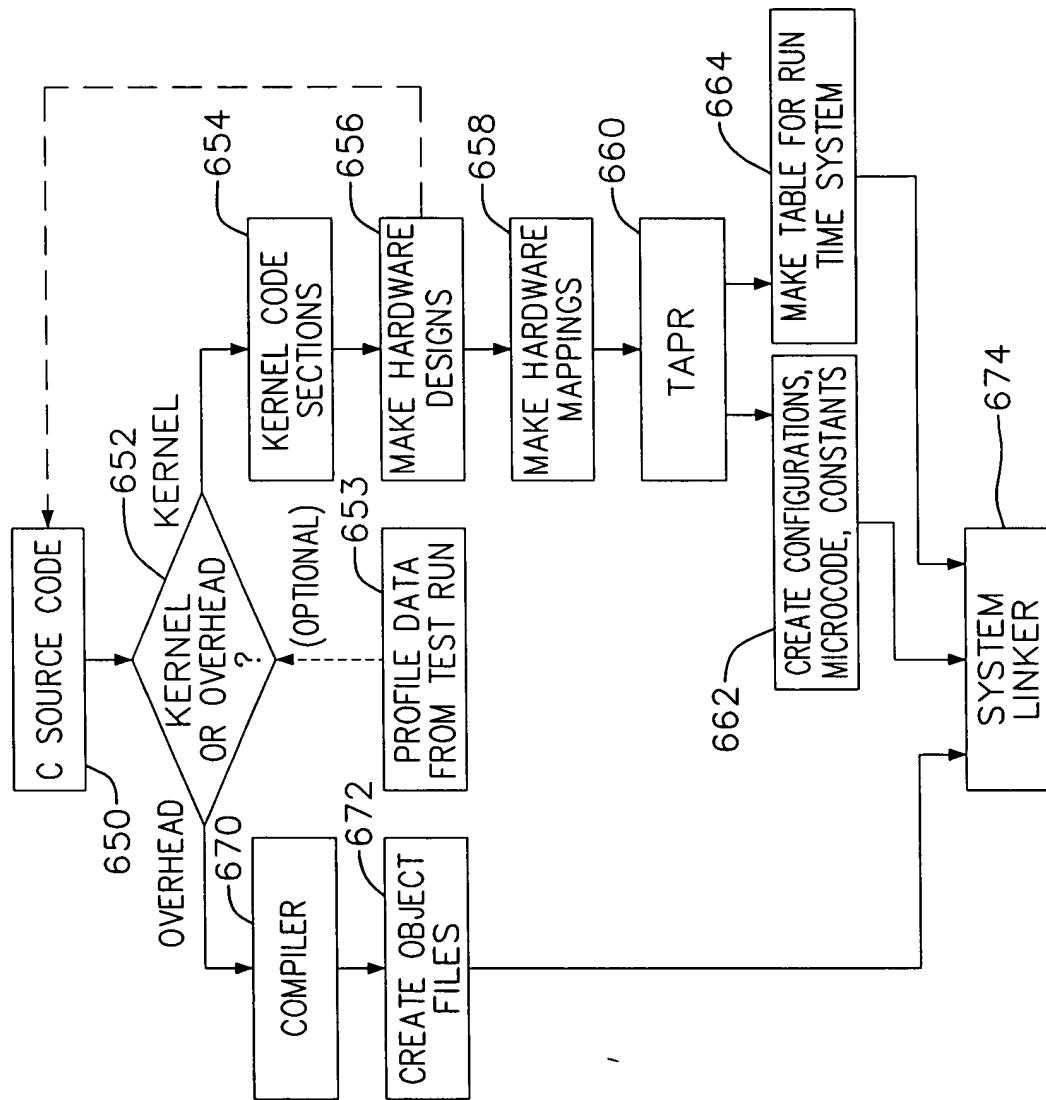Sheet 6 of 16

FIG.6

Application No. 09/651,425
Inventor(s): Christopher Songer, et al.
Title: SYSTEM AND METHOD FOR PREPARING
SOFTWARE FOR EXECUTION IN A
DYNAMICALLY CONFIGURABLE . . .
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FIG.7A

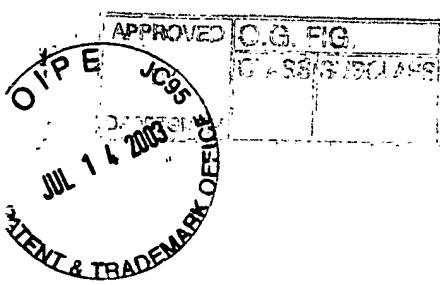Application No. 09/651,425
Inventor(s): Christopher Songer, et al.
Title: SYSTEM AND METHOD FOR PREPARING
SOFTWARE FOR EXECUTION IN A
DYNAMICALLY CONFIGURABLE . . .
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FIG.7B

Application No. 09/651,425
ntor(s): Christopher Songer, et al.
e: SYSTEM AND METHOD FOR PREPARING
SOFTWARE FOR EXECUTION IN A
DYNAMICALLY CONFIGURABLE . . .
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FIG.8

704

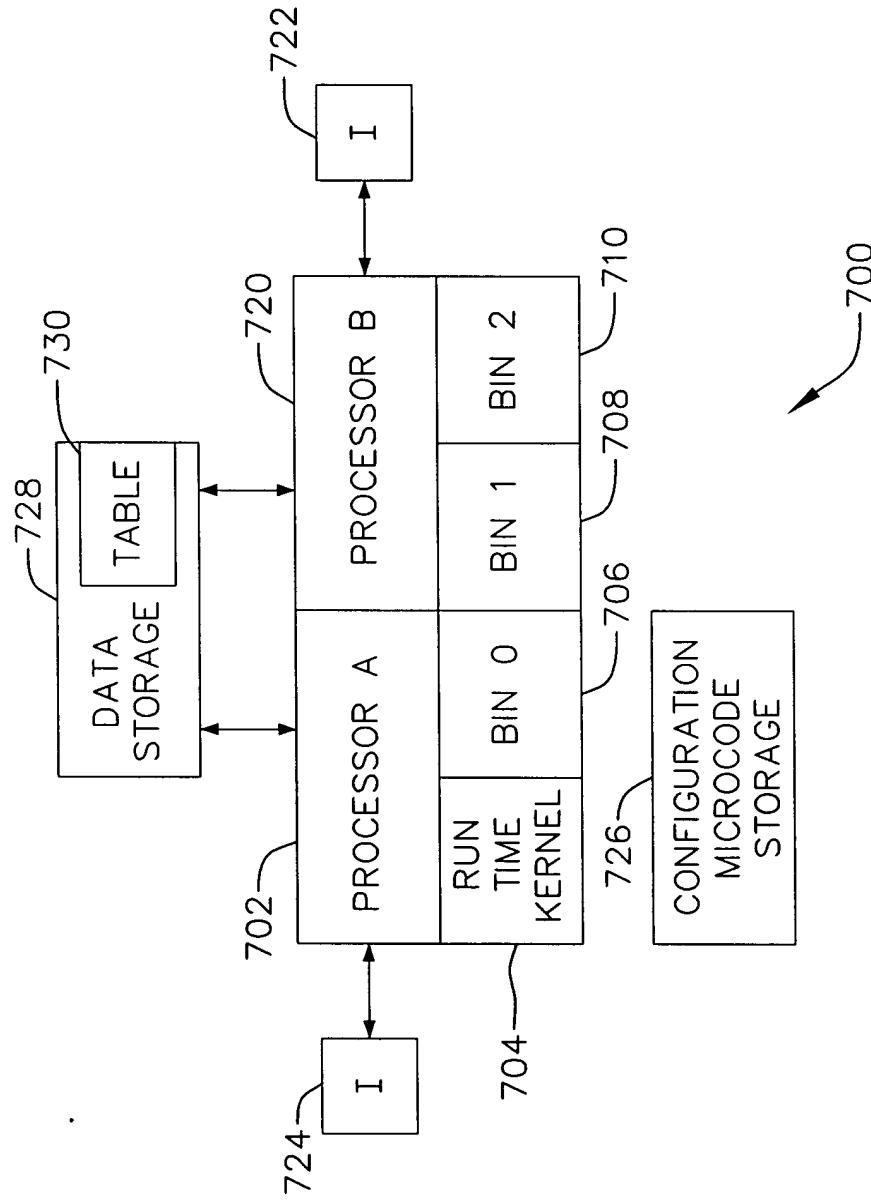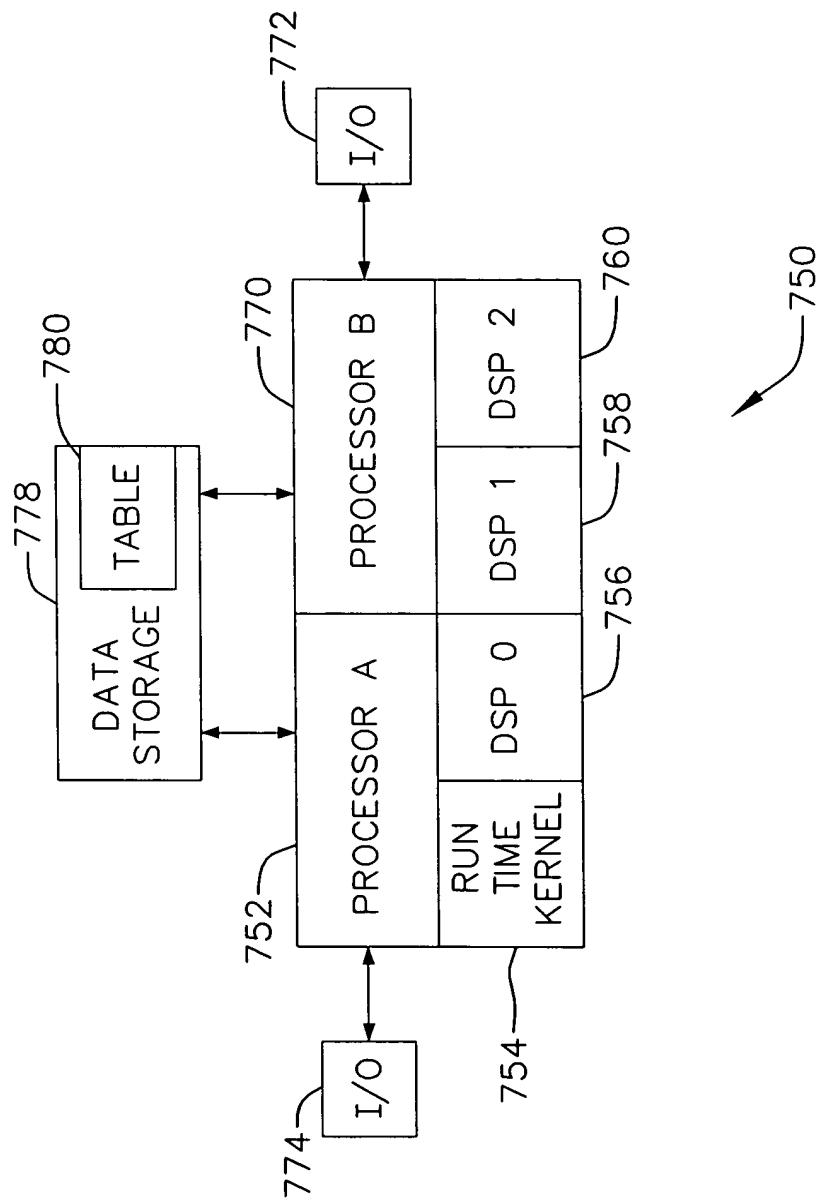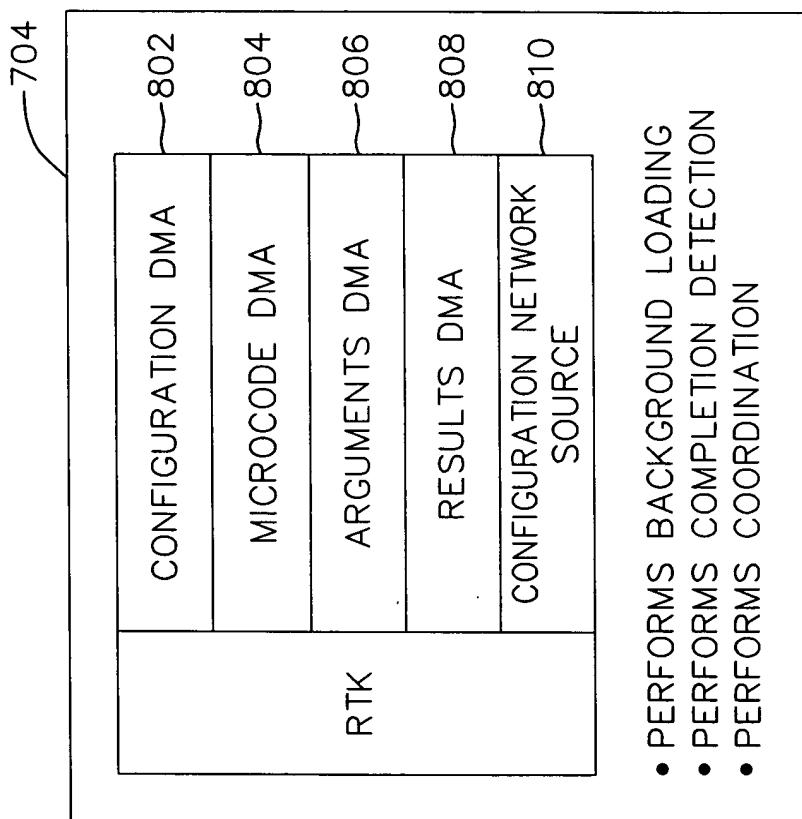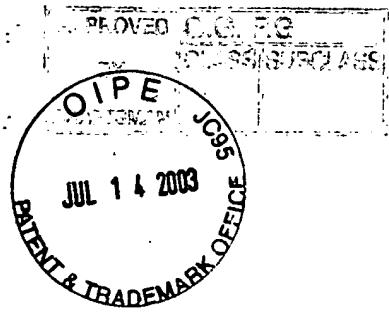| RTK | CONFIGURATION DMA | ~802 |
	MICROCODE DMA	~804
	ARGUMENTS DMA	~806
	RESULTS DMA	~808
	CONFIGURATION NETWORK SOURCE	~810

- PERFORMS BACKGROUND LOADING
- PERFORMS COMPLETION DETECTION
- PERFORMS COORDINATION

Application No. 09/651,425
Inventor(s): Christopher Songer, et al.
Title: SYSTEM AND METHOD FOR PREPARING
SOFTWARE FOR EXECUTION IN A
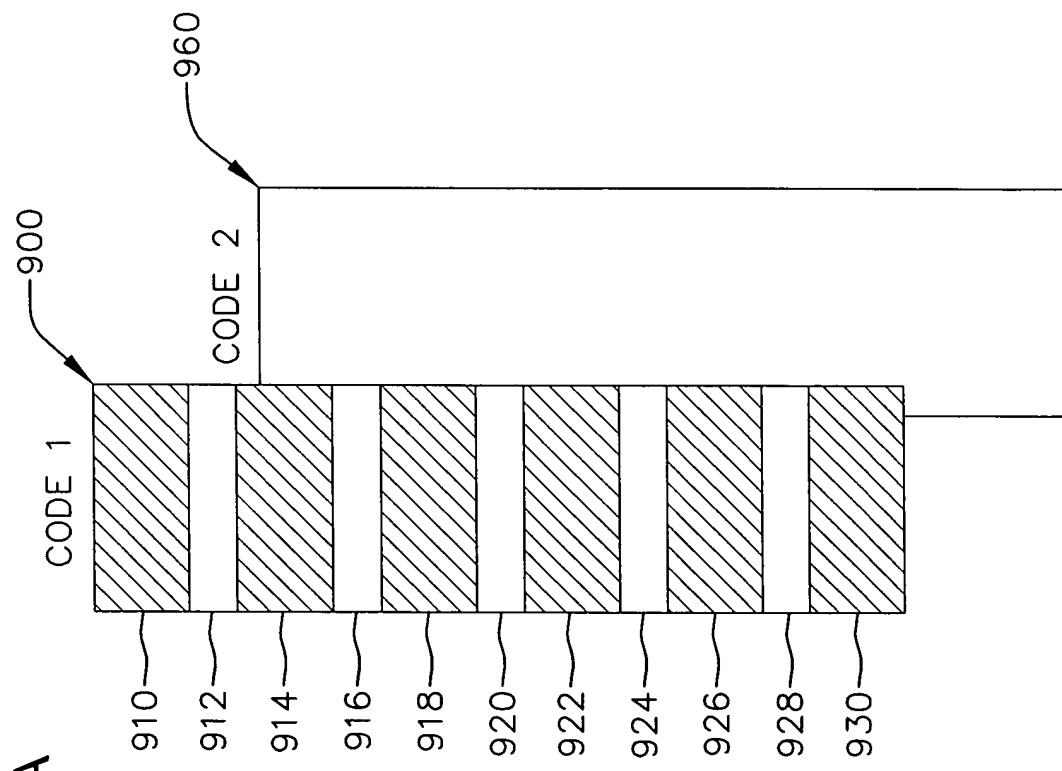DYNAMICALLY CONFIGURABLE . . .
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FIG.9A

Application No. 09/651,425
Inventor(s): Christopher Songer, et al.
Title: SYSTEM AND METHOD FOR PREPARING
SOFTWARE FOR EXECUTION IN A
DYNAMICALLY CONFIGURABLE . . .
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FIG.9B
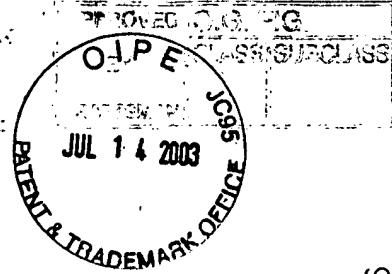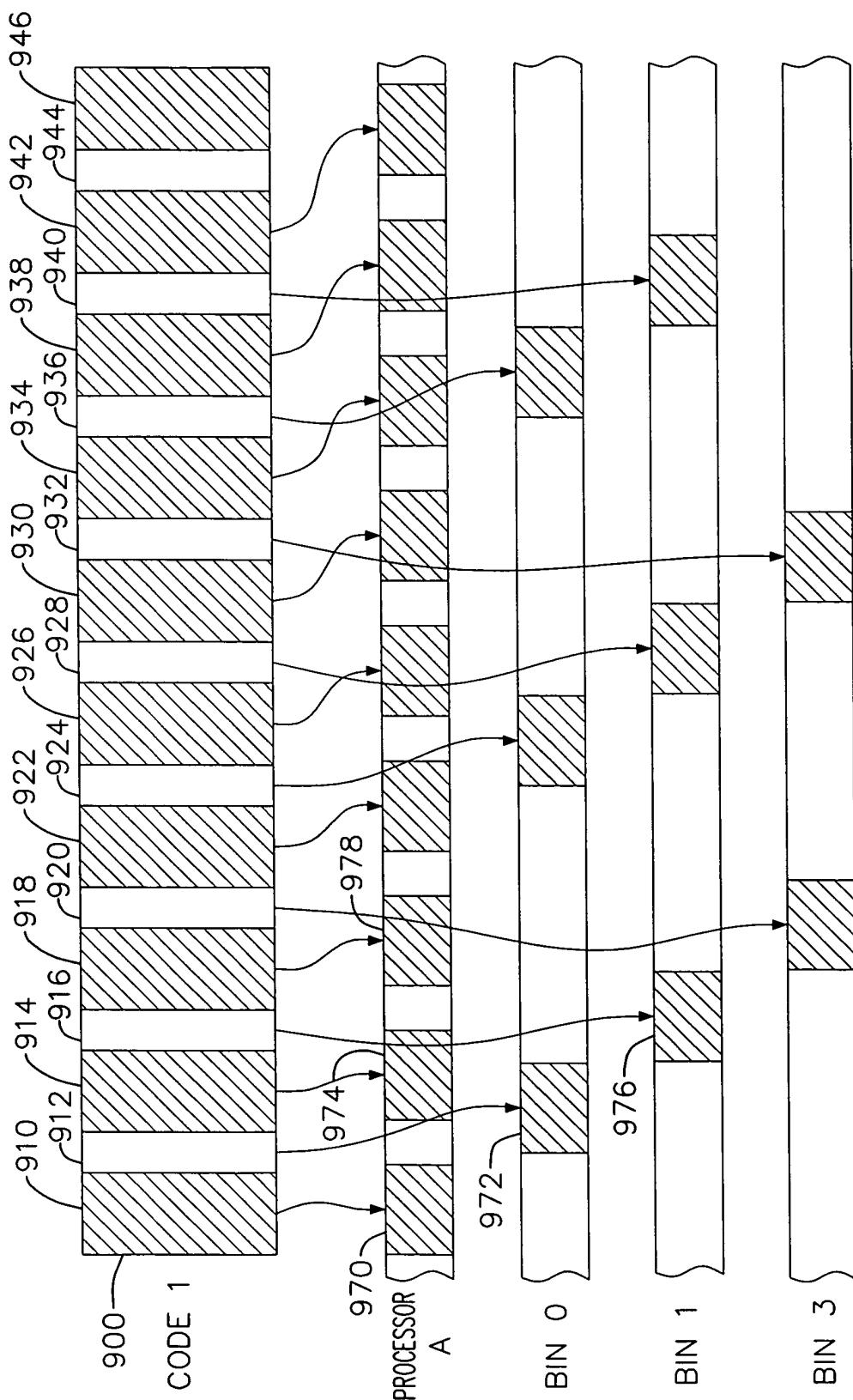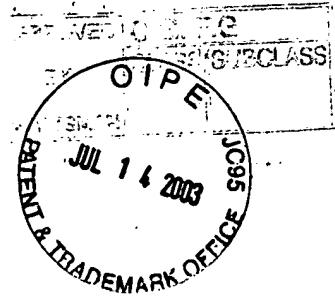
Application No. 09/651,425
Inventor(s): Christopher Songer, et al.
Title: SYSTEM AND METHOD FOR PREPARING
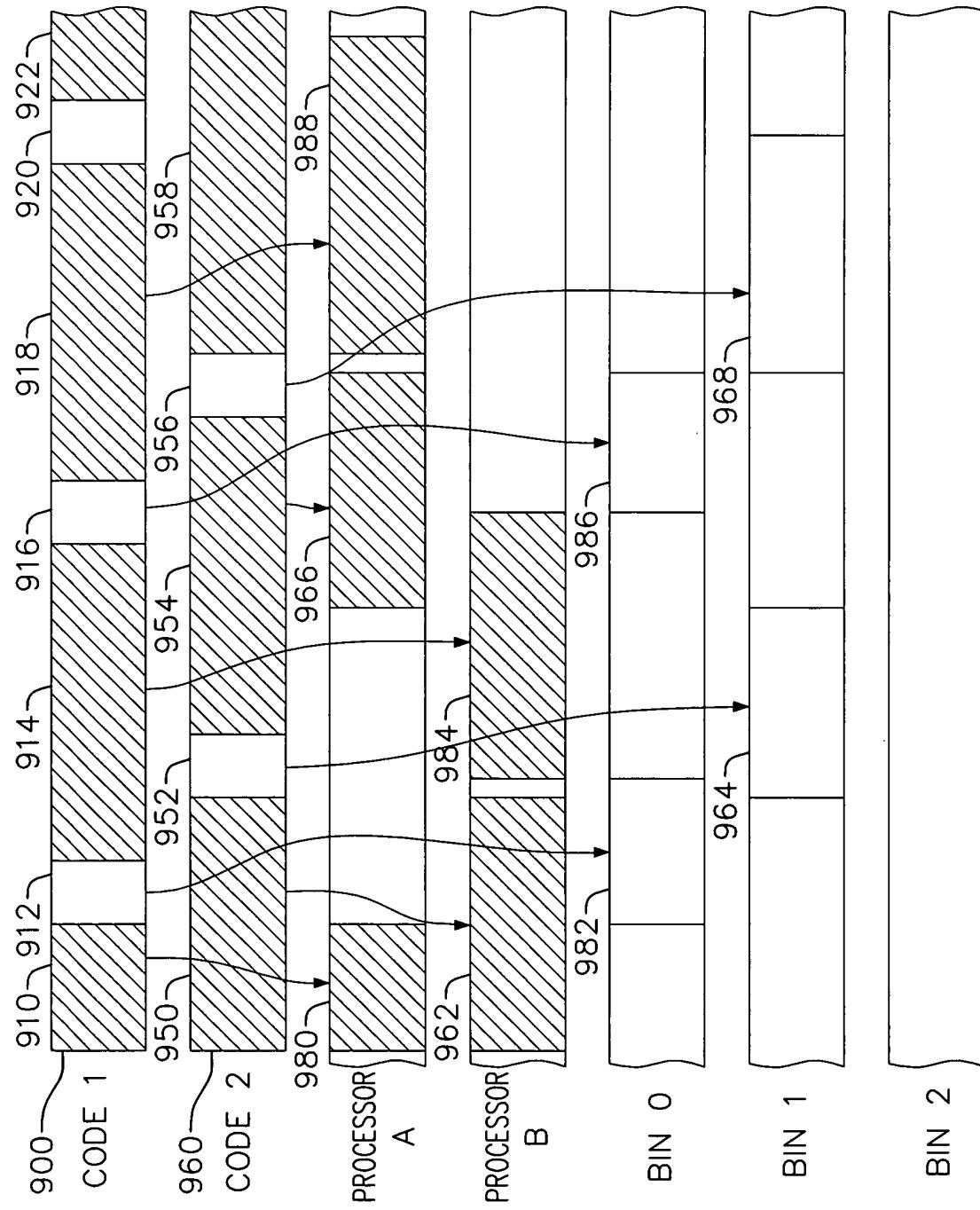SOFTWARE FOR EXECUTION IN A
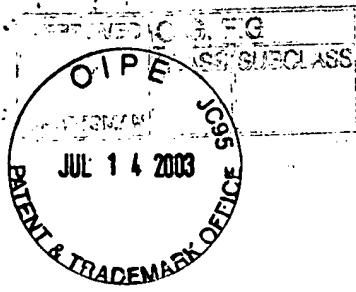DYNAMICALLY CONFIGURABLE . . .
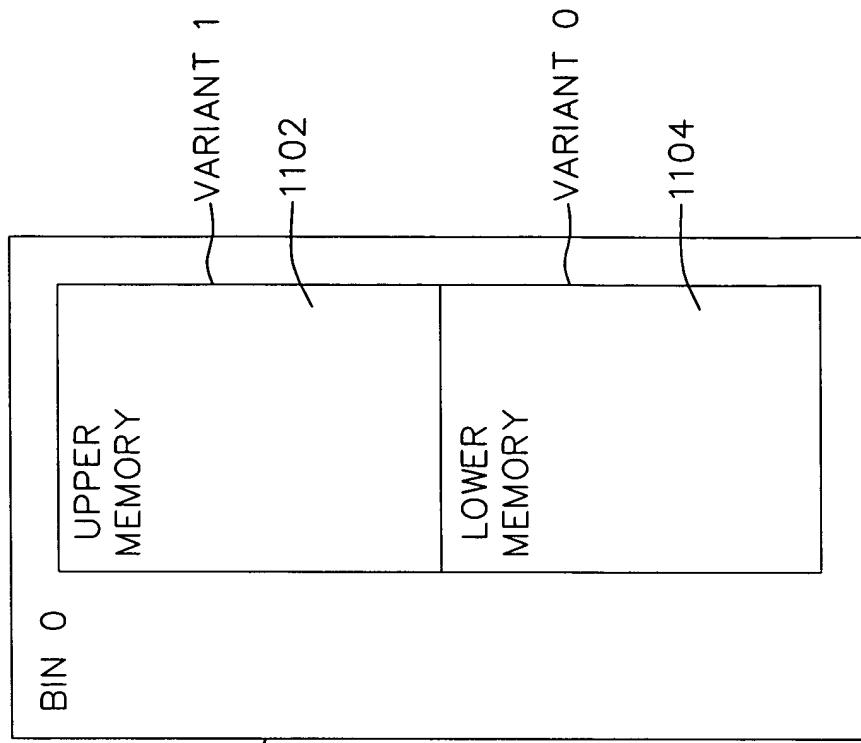Sheet 12 of 16

FIG.9C

Application No. 09/651,425
Inventor(s): Christopher Songer, et al.
Title: SYSTEM AND METHOD FOR PREPARING
SOFTWARE FOR EXECUTION IN A
DYNAMICALLY CONFIGURABLE . . .
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FIG.11

BIN 0

UPPER MEMORY — VARIANT 1 — 1102

LOWER MEMORY — VARIANT 0 — 1104

706

FIG.10

DESIGN #

N
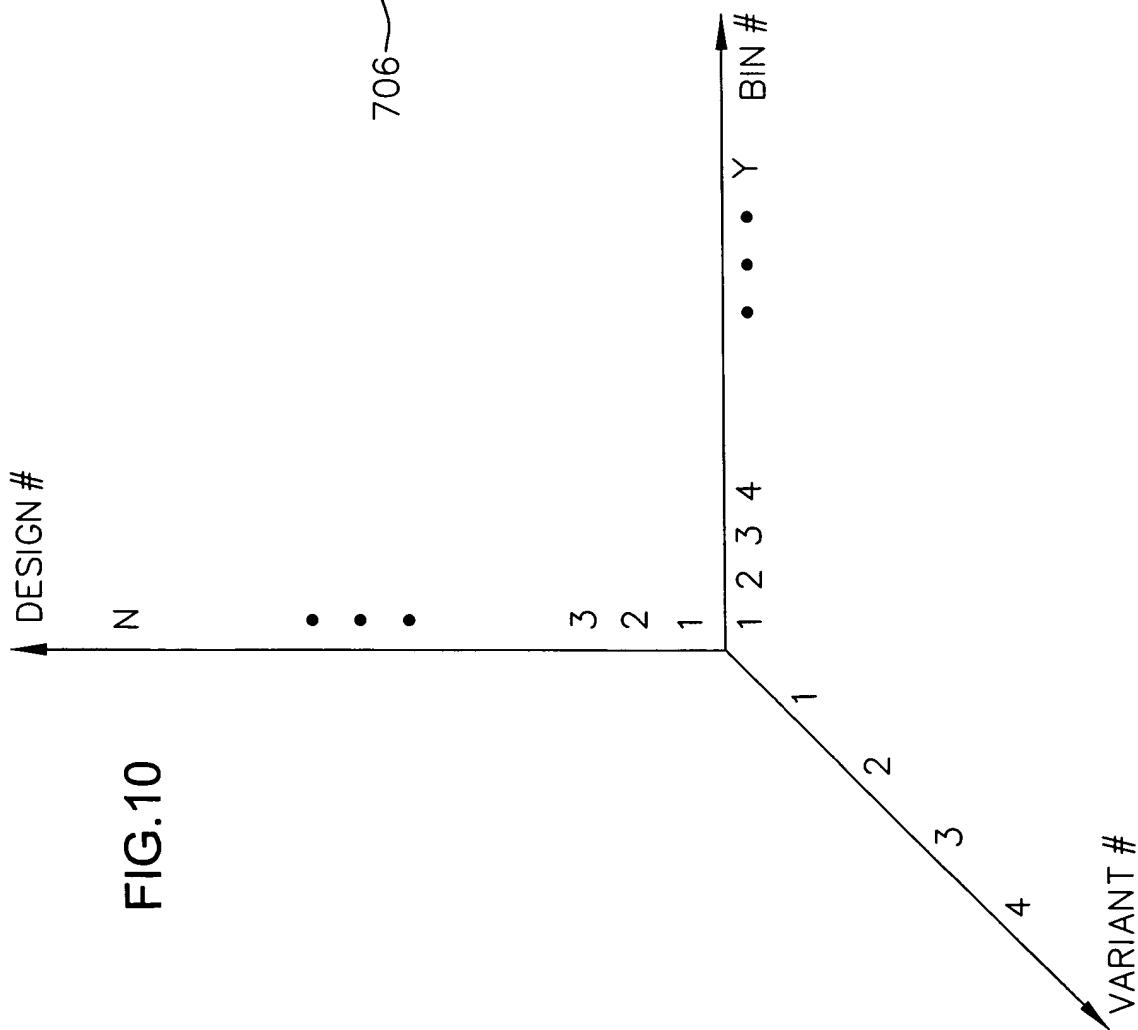
3
2
1

1 2 3 4

BIN #

Y

1

2

3

4

VARIANT #

Application No. 09/651,425
Inventor(s): Christopher Songer, et al.
Title: SYSTEM AND METHOD FOR PREPARING
SOFTWARE FOR EXECUTION IN A
DYNAMICALLY CONFIGURABLE . . .
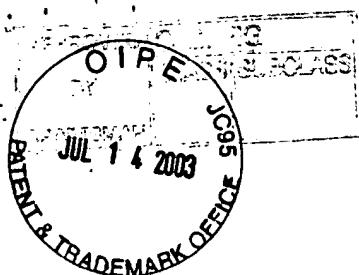Sheet 14 of 16

FIG.12

Application No. 09/651,425
Inventor(s): Christopher Songer, et al.
Title: SYSTEM AND METHOD FOR PREPARING
SOFTWARE FOR EXECUTION IN A
DYNAMICALLY CONFIGURABLE ...
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FIG.13

Application No. 09/651,425
Inventor(s): Christopher Songer, et al.
Title: SYSTEM AND METHOD FOR PREPARING
SOFTWARE FOR EXECUTION IN A
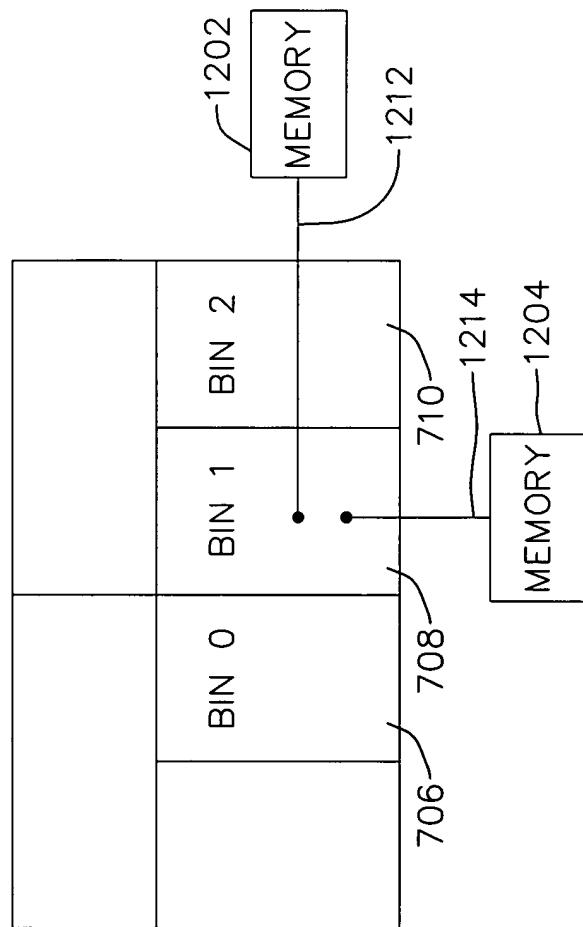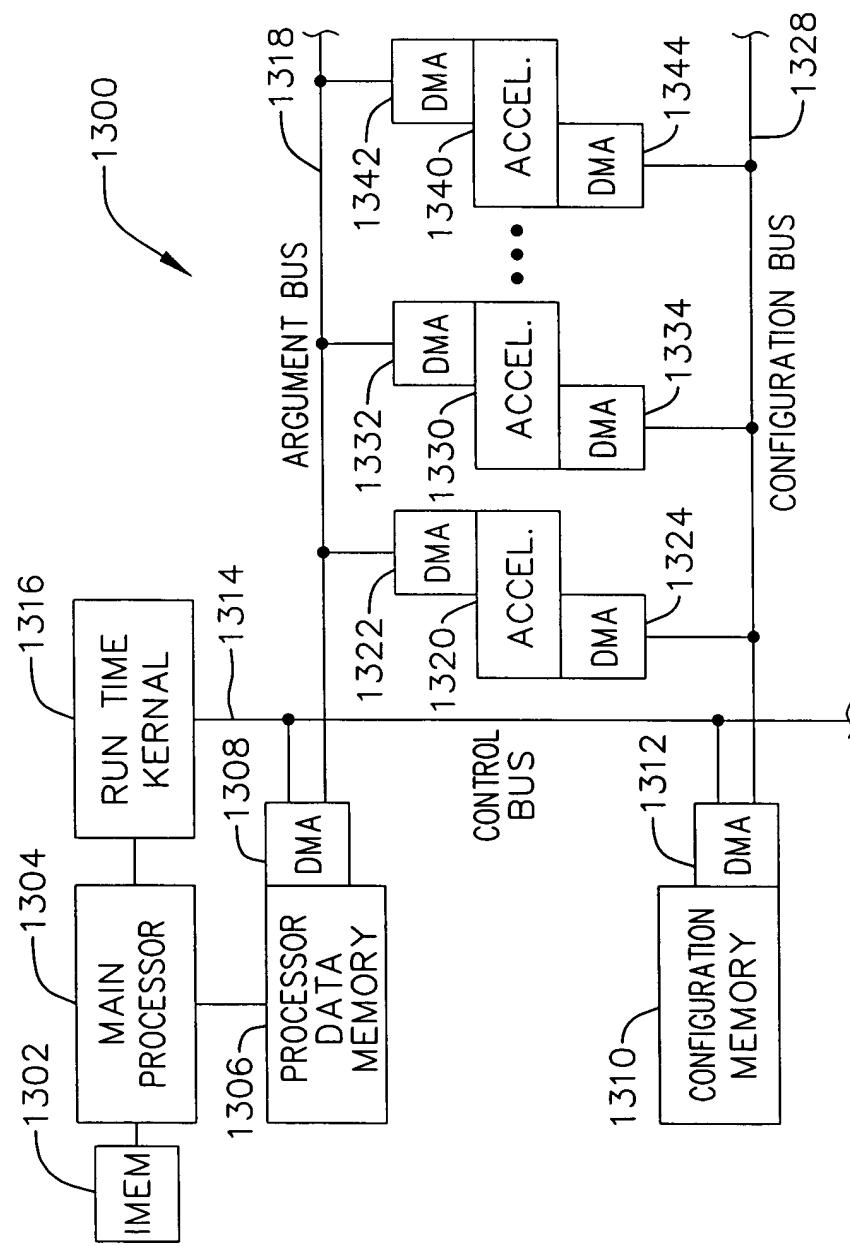DYNAMICALLY CONFIGURABLE . . .
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FIG.14